Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866)
217-9197 (toll free).

Reviewer: markspencer

Timestamp: [year=2008; month=11; day=21; hr=15; min=10; sec=50; ms=125;

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## Validated By CRFValidator v 1.0.3

Application No: Version No: 10576995 1.0

Input Set:

Output Set:

**Started:** 2008-10-29 16:17:57.183 Finished: 2008-10-29 16:17:57.842

Elapsed:

0 hr(s) 0 min(s) 0 sec(s) 659 ms

Total Warnings:

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No. of SeqIDs Defined:

Actual SeqID Count: 8

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| <150> PCT/US2004/027655<br><151> 2004-08-25                         |            |     |
| <150> 60/497,988<br><151> 2003-08-26                                |            |     |
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| cggctcagag aatactatga ccagacagct cagatgtgct gcagcaaatg              | ctcgccgggc | 180 |
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| agcacataca cccagctctg gaactgggtt cccgagtgct tgagctgtgg              | ctcccgctgt | 300 |
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| aggcccggct ggtactgcgc gctgagcaag caggaggggt gccggctgtg              | cgcgccgctg | 420 |
| cgcaagtgcc gcccgggctt cggcgtggcc agaccaggaa ctgaaacatc              | agacgtggtg | 480 |
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| ccccaccaga tetgtaacgt ggtggccatc cetgggaatg caagcatgga              |            | 600 |
| acgtccacgt ccccacccg gagtatggcc ccaggggcag tacacttacc               |            | 660 |
| tecacaegat eccaaeacae geageeaaet ecagaaeeca geaetgetee              | aagcacctcc | 720 |

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| tcttgtgaca | aaactcacac | atgcccaccg | tgcccagcac | ctgaactcct | ggggggaccg | 840  |
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| agaaagcagg | acaagcgctt | cgccttcatc | cgctcagaca | gtggccccac | caccagtttt | 1800 |
| gagtctgccg | cctgccccgg | ttggttcctc | tgcacagcga | tggaagctga | ccagcccgtc | 1860 |
| agcctcacca | atatgcctga | cgaaggcgtc | atggtcacca | aattctactt | ccaggaggac | 1920 |
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<210> 2
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<211> 619

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

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1 5 10 15

20 25 30

Ser Lys Cys Ser Pro Gly Gln His Ala Lys Val Phe Cys Thr Lys Thr 35 40 45 Ser Asp Thr Val Cys Asp Ser Cys Glu Asp Ser Thr Tyr Thr Gln Leu 55 Trp Asn Trp Val Pro Glu Cys Leu Ser Cys Gly Ser Arg Cys Ser Ser 65 70 75 80 Asp Gln Val Glu Thr Gln Ala Cys Thr Arg Glu Gln Asn Arg Ile Cys 85 90 Thr Cys Arg Pro Gly Trp Tyr Cys Ala Leu Ser Lys Gln Glu Gly Cys 100 105 110 Arg Leu Cys Ala Pro Leu Arg Lys Cys Arg Pro Gly Phe Gly Val Ala 115 120 125 Arg Pro Gly Thr Glu Thr Ser Asp Val Val Cys Lys Pro Cys Ala Pro 130 135 140 Gly Thr Phe Ser Asn Thr Thr Ser Ser Thr Asp Ile Cys Arg Pro His 145 150 155 160 Gln Ile Cys Asn Val Val Ala Ile Pro Gly Asn Ala Ser Met Asp Ala 170 165 175 Val Cys Thr Ser Thr Ser Pro Thr Arg Ser Met Ala Pro Gly Ala Val 180 185 190 His Leu Pro Gln Pro Val Ser Thr Arg Ser Gln His Thr Gln Pro Thr 195 200 Pro Glu Pro Ser Thr Ala Pro Ser Thr Ser Phe Leu Leu Pro Met Gly 210 215 220 Pro Ser Pro Pro Ala Glu Gly Ser Thr Gly Asp Glu Pro Lys Ser Cys 230 235 240 225

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly

250

| Gly        | Pro        | Ser        | Val<br>260 | Phe        | Leu        | Phe        | Pro        | Pro<br>265 | Lys        | Pro        | Lys        | Asp        | Thr<br>270 | Leu        | Met        |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Ile        | Ser        | Arg<br>275 | Thr        | Pro        | Glu        | Val        | Thr<br>280 | Суз        | Val        | Val        | Val        | Asp<br>285 | Val        | Ser        | His        |
| Glu        | Asp<br>290 | Pro        | Glu        | Val        | Lys        | Phe<br>295 | Asn        | Trp        | Tyr        | Val        | Asp<br>300 | Gly        | Val        | Glu        | Val        |
| His<br>305 | Asn        | Ala        | Lys        | Thr        | Lys<br>310 | Pro        | Arg        | Glu        | Glu        | Gln<br>315 | Tyr        | Asn        | Ser        | Thr        | Tyr<br>320 |
| Arg        | Val        | Val        | Ser        | Val<br>325 | Leu        | Thr        | Val        | Leu        | His<br>330 | Gln        | Asp        | Trp        | Leu        | Asn<br>335 | Gly        |
| Lys        | Glu        | Tyr        | Lys<br>340 | Суз        | Lys        | Val        | Ser        | Asn<br>345 | Lys        | Ala        | Leu        | Pro        | Ala<br>350 | Pro        | Ile        |
| Glu        | Lys        | Thr<br>355 | Ile        | Ser        | Lys        | Ala        | Lys<br>360 | Gly        | Gln        | Pro        | Arg        | Glu<br>365 | Pro        | Gln        | Val        |
| Tyr        | Thr<br>370 | Leu        | Pro        | Pro        | Ser        | Arg<br>375 | Asp        | Glu        | Leu        | Thr        | Lys<br>380 | Asn        | Gln        | Val        | Ser        |
| Leu<br>385 | Thr        | Cys        | Leu        | Val        | Lys<br>390 | Gly        | Phe        | Tyr        | Pro        | Ser<br>395 | Asp        | Ile        | Ala        | Val        | Glu<br>400 |
| Trp        | Glu        | Ser        | Asn        | Gly<br>405 | Gln        | Pro        | Glu        | Asn        | Asn<br>410 | Tyr        | Lys        | Thr        | Thr        | Pro<br>415 | Pro        |
| Val        | Leu        | Asp        | Ser<br>420 | Asp        | Gly        | Ser        | Phe        | Phe<br>425 | Leu        | Tyr        | Ser        | Lys        | Leu<br>430 | Thr        | Val        |
| Asp        | Lys        | Ser<br>435 | Arg        | Trp        | Gln        | Gln        | Gly<br>440 | Asn        | Val        | Phe        | Ser        | Cys<br>445 | Ser        | Val        | Met        |
| His        | Glu<br>450 | Ala        | Leu        | His        | Asn        | His<br>455 | Tyr        | Thr        | Gln        | Lys        | Ser<br>460 | Leu        | Ser        | Leu        | Ser        |
| Pro<br>465 | Gly        | Lys        | Arg        | Pro        | Ser<br>470 | Gly        | Arg        | Lys        | Ser        | Ser<br>475 | Lys        | Met        | Gln        | Ala        | Phe<br>480 |

Arg Ile Trp Asp Val Asn Gln Lys Thr Phe Tyr Leu Arg Asn Asn Gln 485 Leu Val Ala Gly Tyr Leu Gln Gly Pro Asn Val Asn Leu Lys Glu Lys 500 505 510 Ile Asp Val Val Pro Ile Glu Pro His Ala Leu Phe Leu Gly Ile His 515 520 525 Gly Gly Lys Met Cys Leu Ser Cys Val Lys Ser Gly Asp Glu Thr Arg 530 535 Leu Gln Leu Glu Ala Val Asn Ile Thr Asp Leu Ser Glu Asn Arg Lys 550 555 Gln Asp Lys Arg Phe Ala Phe Ile Arg Ser Asp Ser Gly Pro Thr Thr 565 570 575 Ser Phe Glu Ser Ala Ala Cys Pro Gly Trp Phe Leu Cys Thr Ala Met 585 580 Glu Ala Asp Gln Pro Val Ser Leu Thr Asn Met Pro Asp Glu Gly Val 595 600 605 Met Val Thr Lys Phe Tyr Phe Gln Glu Asp Glu 610 615 <210> 3 <211> 235 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic construct Leu Pro Ala Gln Val Ala Phe Thr Pro Tyr Ala Pro Glu Pro Gly Ser 1 5 10 15 Thr Cys Arg Leu Arg Glu Tyr Tyr Asp Gln Thr Ala Gln Met Cys Cys 25 20

Ser Lys Cys Ser Pro Gly Gln His Ala Lys Val Phe Cys Thr Lys Thr

45

40

Ser Asp Thr Val Cys Asp Ser Cys Glu Asp Ser Thr Tyr Thr Gln Leu 50 55 60

Trp Asn Trp Val Pro Glu Cys Leu Ser Cys Gly Ser Arg Cys Ser Ser 65 70 75 80

Asp Gln Val Glu Thr Gln Ala Cys Thr Arg Glu Gln Asn Arg Ile Cys 85 90 95

Thr Cys Arg Pro Gly Trp Tyr Cys Ala Leu Ser Lys Gln Glu Gly Cys
100 105 110

Arg Leu Cys Ala Pro Leu Arg Lys Cys Arg Pro Gly Phe Gly Val Ala 115 120 125

Arg Pro Gly Thr Glu Thr Ser Asp Val Val Cys Lys Pro Cys Ala Pro 130 135 140

Gln Ile Cys Asn Val Val Ala Ile Pro Gly Asn Ala Ser Met Asp Ala  $165 \hspace{1.5cm} 170 \hspace{1.5cm} 175$ 

Val Cys Thr Ser Thr Ser Pro Thr Arg Ser Met Ala Pro Gly Ala Val 180 185 190

His Leu Pro Gln Pro Val Ser Thr Arg Ser Gln His Thr Gln Pro Thr
195 200 205

Pro Glu Pro Ser Thr Ala Pro Ser Thr Ser Phe Leu Leu Pro Met Gly 210 215 220

Pro Ser Pro Pro Ala Glu Gly Ser Thr Gly Asp 225 230 235

<210> 4

<211> 231

<212> PRT

<213> Homo sapiens

<400> 4

Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala

L 5 10 15

Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro 20 25 30

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val 35 40 45

Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val 50 55 60

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln 65 70 75 80

Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln \$85\$ 90 95

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala 100 105 110

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro 115 120 125

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr  $130\,$ 

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr 165 170 175

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr 180 185 190

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe 195 200 205

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys 210 215 220

Ser Leu Ser Leu Ser Pro Gly 225 230

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<211> 152
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
    construct
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                  10 15
Asp Val Asn Gln Lys Thr Phe Tyr Leu Arg Asn Asn Gln Leu Val Ala
   20 25 30
Gly Tyr Leu Gln Gly Pro Asn Val Asn Leu Lys Glu Lys Ile Asp Val
             40
                           45
     35
Val Pro Ile Glu Pro His Ala Leu Phe Leu Gly Ile His Gly Gly Lys
  50 55 60
Met Cys Leu Ser Cys Val Lys Ser Gly Asp Glu Thr Arg Leu Gln Leu
65 70 75
Glu Ala Val Asn Ile Thr Asp Leu Ser Glu Asn Arg Lys Gln Asp Lys
         Arg Phe Ala Phe Ile Arg Ser Asp Ser Gly Pro Thr Thr Ser Phe Glu
      100 105 110
Ser Ala Ala Cys Pro Gly Trp Phe Leu Cys Thr Ala Met Glu Ala Asp
               120
                                 125
     115
Gln Pro Val Ser Leu Thr Asn Met Pro Asp Glu Gly Val Met Val Thr
  130 135 140
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<210> 6 <211> 1467 <212> DNA <213> Artificial Sequence

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<212> PRT
<213> Artificial Sequence
<220>
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      20 25
Ser Lys Cys Ser Pro Gly Gln His Ala Lys Val Phe Cys Thr Lys Thr
    35 40
Ser Asp Thr Val Cys Asp Ser Cys Glu Asp Ser Thr Tyr Thr Gln Leu
     55 60
  50
Trp Asn Trp Val Pro Glu Cys Leu Ser Cys Gly Ser Arg Cys Ser Ser
           70
                           75
65
Asp Gln Val Glu Thr Gln Ala Cys Thr Arg Glu Gln Asn Arg Ile Cys
          Thr Cys Arg Pro Gly Trp Tyr Cys Ala Leu Ser Lys Gln Glu Gly Cys
   100 105 110
Arg Leu Cys Ala Pro Leu Arg Lys Cys Arg Pro Gly Phe Gly Val Ala
   115 120 125
Arg Pro Gly Thr Glu Thr Ser Asp Val Val Cys Lys Pro Cys Ala Pro
        135 140
  130
Gly Thr Phe Ser Asn Thr Thr Ser Ser Thr Asp Ile Cys Arg Pro His
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Gln Ile Cys Asn Val Val Ala Ile Pro Gly

150

155

160